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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,140	06/25/2003	Andre Sirilutporn Chan	HSJ920030034US1	7797

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EXAMINER

RENNER, CRAIG A

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,140

Applicant(s)

CHAN ET AL.

Examiner

Craig A. Renner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 3,7,9 and 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because it does not identify the city and either state or foreign country of residence of each inventor. The residence information may be provided on either on an application data sheet or supplemental oath or declaration.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include one or more reference signs not mentioned in the description. Note, for instance, "207" (shown in FIG. 3, for instance), "221" (shown in FIG. 3, for instance), and "263" (shown in FIG. 4, for instance). Corrected drawing sheets in compliance with 37 CFR 1.121(d), and/or an amendment to the specification in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The disclosure is objected to because of the following informalities:

In lines 5, 7(twice) and 8 on page 6, each instance of "hub 141" should be changed to --hub 143-- in order to be consistent with the remainder of the disclosure. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In lines 1-2 of claim 2, "the central bore" is indefinite because it lacks clear and/or proper antecedent basis.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 4-6, 8, and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US 5,694,269).

With respect to claims 1 and 4, Lee teaches a system comprising a hub (20) of a motor (10) having a plurality of fastener openings (each h_2) formed on a bolt circle diameter, and an annular recess (20b) formed in and circumscribing the hub, the annular recess defining an outer wall; a disk clamp (30) having a plurality of apertures (each h_1) extending therethrough at the bolt circle diameter, and an annular rim (31) protruding from the disk clamp, the annular rim defining an inner wall; and the disk clamp being centered on the hub by engaging the inner wall of the disk clamp with the outer wall of the hub such that the annular rim of the disk clamp is closely received by and seats in the annular recess in the hub (as shown in FIGS. 4-5, for instance) [as per claim 1]; wherein the disk clamp is assembled to the hub by extending fasteners (41) through the apertures in the disk clamp and into engagement with the fastener openings in the hub (as shown in FIG. 5, for instance) [as per claim 4].

With respect to claims 5-6, Lee teaches a hard disk drive (FIG. 1, for instance) comprising an enclosure (includes 2, for instance); a motor (10) mounted to the enclosure, the motor having a shaft (radially inward of 20b), a hub (20) with a central bore (radially inward of 20b), a plurality of fastener openings (each h_2) formed on a bolt circle diameter, an outer circumference at a perimeter of the hub, and a bearing assembly (radially inward of 20b) that is located radially between the shaft and the hub in the central bore of the hub (as shown in FIG. 5, for instance), the bearing assembly having a bearing sleeve that defines an outer wall (as shown in FIG. 5, for instance); a disk clamp (30) having a central opening (31a) and a plurality of apertures (each h_1) extending through the disk clamp at the bolt circle diameter, the central opening defining an inner wall, the disk clamp being concentrically aligned with and attached to the motor by engagement between the inner wall of the disk clamp and the outer wall of the bearing sleeve (as shown in FIGS. 4-5, for instance), such that the disk clamp is closely received by and seats on the bearing assembly in the hub (as shown in FIGS. 4-5, for instance); a disk (21 or 22) for information storage and retrieval mounted to the hub for rotation therewith, the disk being secured to the hub with the disk clamp; and an actuator assembly (includes 4 and 5, for instance) mounted to the enclosure for movement relative to the enclosure and the disk, the actuator having a head gimbal assembly (includes 6 and 7, for instance) with a head (7) for reading data from and writing data to the disk [as per claim 5]; wherein the bolt circle diameter is radially outboard of the central bore of the hub (as shown in FIG. 5, for instance), the outer circumference of the hub is radially outboard of the bolt circle diameter (as shown in

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FIG. 5, for instance), and the disk clamp has an outer clamp circumference at a perimeter of the disk clamp (as shown in FIG. 4, for instance) [as per claim 6].

With respect to claims 8 and 11, Lee teaches a method comprising providing a hub (20) of a motor (10) with an annular recess (20b) formed in and circumscribing the hub, the annular recess defining an outer wall, a disk clamp (30) having an annular rim (31) protruding from the disk clamp, the annular rim defining an inner wall; mounting a disk (21 or 22) to the hub; placing the disk clamp on the hub to retain the disk on the hub (as shown in FIG. 4, for instance); aligning the annular rim on the disk clamp with the annular recess in the hub, such that the disk clamp is centered on the hub by engaging the inner wall of the disk clamp with the outer wall of the hub; and closely receiving and seating the annular rim of the disk clamp in the annular recess in the hub to form a disk pack assembly (as shown in FIGS. 4-5, for instance) [as per claim 8]; and assembling the disk clamp to the hub by extending fasteners (41) through the disk clamp and into engagement with fastener openings (each h_2) in the hub [as per claim 11].

With respect to claims 12-13, Lee teaches a method comprising providing a motor (10) with a hub (20), a shaft (radially inward of 20b) located in a bore (radially inward of 20b) of the hub, and a bearing assembly (radially inward of 20b) located between the shaft and the bore of the hub (as shown in FIG. 5, for instance), the bearing assembly defining an outer wall; mounting a disk (21 or 22) to the hub; placing a disk clamp (30) on the hub to retain the disk on the hub, the disk clamp having a central opening (31a) that defines an inner wall; aligning the central opening in the disk

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clamp with the bearing assembly in the hub, such that the disk clamp is centered on the hub by engaging the inner wall of the disk clamp with the outer wall of the bearing assembly; and closely receiving and seating the inner wall of the disk clamp on the outer wall on the bearing assembly to form a disk pack assembly (as shown in FIGS. 4-5, for instance) [as per claim 12]; and axially extending the outer wall of the bearing assembly beyond an axial end of the hub (as shown in FIG. 4, for instance) [as per claim 13].

Claim Rejections/Considerations - 35 USC § 103

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Allowable Subject Matter

10. Claims 3, 7, and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.


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Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (703) 308-0559. The examiner can normally be reached on Tuesday-Friday 7:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Craig A. Renner
Primary Examiner
Art Unit 2652

CAR